

Remarks/Arguments

The Final Office Action mailed December 8, 2009 has been reviewed and carefully considered.

Claim 16 has been amended. Claims 2, 4, 5, 8, 11, 13, 14 and 16 are now pending in this application. No new matter has been added.

Reconsideration of the above-identified application, as herein amended and in view of the following remarks, is respectfully requested. Applicant notes that amendments to independent claim 16 have been made in this response. Applicant respectfully requests entry of this amendment as it does not require a further search or present new matter which could be considered the subject matter of a further search.

Rejections under 35 U.S.C. 103(a)

Claims 2, 4, 5, 8, 11, 13, 14, and 16 stand rejected under U.S.C. 103(a) as purportedly being unpatentable over German Document DE 2410976 (hereinafter "German Document") in view of U.S. Patent No. 6,558,085 to Hall (hereinafter 'Hall').

It is noted herein that the German Document relied on herein is the first time this document has been cited, and the action herein has been made Final. Notwithstanding the foregoing, applicant notes that the German Document is similar to the previously cited Townsend document (now withdrawn).

The German Document discloses a device that has two telescopic sleeves which are aligned to extend between the foot wall and the hanging wall. The disadvantages of this two telescopic sleeve design are the same as those described in applicant's previous response as they relate to the device of the previously cited Townsend reference. These disadvantages will not be re-iterated here for sake of brevity.

The present invention can be distinguished from the German Document in that the single tubular sleeve of the present invention has an upper end and an opposed lower end, and that in use, at least one end is in contact with the hanging wall or the foot wall and the other opposed end is in contact with the other of the hanging wall and foot wall, optionally through the medium of the pre-stressing device. Claim 16 has been amended in this respect, and as such is believed to be clearly allowable over the cited German Document, taken singly or in any combination with the teachings of Hall.

It is respectfully asserted that there is nothing in the teachings of the German Document, or Hall, taken singly, or in any combination, that discloses or suggests the claimed single sleeve type of mine support. In addition, and as noted in applicants previous response, the single sleeve structure of the present invention has significant benefits over the telescopic sleeve structure disclosed in the each of the cited references.

It is respectfully submitted that amended claim 16 is patentable over the German Document and/or Hall at least because the references do not disclose or render obvious employing "a single deformable tubular sleeve with a circular cross section made from a ductile metal." Rather, the German Document is directed to a mine support employing two separate sleeves to permit telescopic movement and slow adjustment of the mine support length.

As stated in applicants' previous office action response, the use of a single sleeve is not obvious, as it would completely preclude the telescopic effect taught in the German Document and would, in turn, subvert its entire principle of operation (see, e.g., MPEP §2143.01 (citing In re Ratti, 270 F.2d 810 (CCPA 1959) ("If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.")).

Moreover, Hall fails to cure the deficiencies of the German Document, as Hall also fails to disclose or render obvious a single deformable tubular sleeve with a circular cross section made from a ductile metal. As illustrated in FIGS. 3 and 4 of Hall, Hall teaches the use of several tubes, for example, tubes 66, 68, 70 and 92, that are partitioned into respective arrays of

compartments. Additionally, in Hall, the support and dividing walls are made from a flexible material that is entirely different from a ductile metal sleeve. For example, Hall teaches that the flexible material may be a "suitable plastics material," "paper" or "cardboard." The purpose of the plastics material is therefore to only confine the filler. The material cannot, in itself, act as a containment structure which assists in determining yield characteristics, about which Townsend was especially concerned, in the same way as a ductile metal sleeve. Further, it should also be noted that there is no description of the cross-sectional shape of the compartments of the tubes.

Accordingly claim 16 is patentable over the cited references, at least because they fail to disclose or render obvious "a single deformable tubular sleeve with a circular cross section made from a ductile metal." However, claim 16 is patentable over Townsend and Hall for other reasons as well.

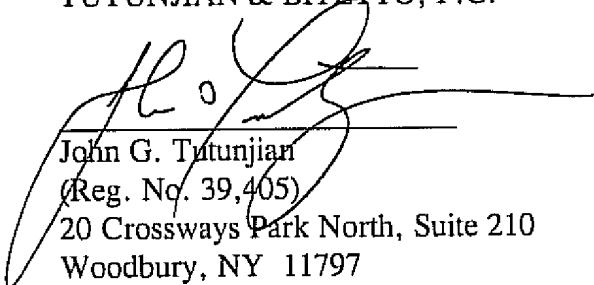
In addition, claims 2, 4, 5, 8, 11, 13, 14 are patentable over the cited references due at least to their dependencies on claim 16. Furthermore, with respect to the remaining claims, the Examiner has stated that each modification results in a yield with a "predictable deformation." The Applicants respectfully disagree, as the teachings of Hall do not produce predictable deformation. Secondly, Townsend makes use of timber and, inherently, the qualities of the timber are such that "predictable deformation" is not achievable. Thirdly, the deformation characteristic in Townsend is affected by the double wall section formed by overlapping tubes. In contrast, in exemplary embodiments of the present invention, a single sleeve is employed, which clearly has predictable characteristics. Further, the cementitious materials are typically produced under factory conditions and, again, have predictable characteristics. Accordingly, the assertions that German Document and Hall form the basis for developing a support with "predictable deformation" is clearly not substantiated.

In view of the foregoing, Applicants respectfully request that the rejections of the claims set forth in the Office Action of December 8, 2009 be withdrawn, that pending claims 2, 4, 5, 8, 11, 13, 14 and 16 be allowed, and that the case proceed to early issuance of Letters Patent in due course.

It is believed that no additional fees or charges are currently due. However, in the event that any additional fees or charges are required at this time in connection with the application, they may be charged to applicants' representatives Deposit Account No.50-1433.

Respectfully submitted,

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